CENTER FOR DRUG EVALUATION AND RESEARCH

APPLICATION NUMBER: NDA 20-980

PHARMACOLOGY REVIEW(S)

JUN 3 1998

REVIEW AND EVALUATION OF PHARMACOLOGY AND TOXICOLOGY DATA
Division of Dermatologic and Dental Drug Products, HFD-540

NDA 20-980 (Original submission 03-30-1998)
Drug: Terbinafine HCl Cream1%

Sponsor: Novartis Pharmaceuticals Corporation
59 Route 10
East Hanover, NJ 07936-1080
Christine Babiuk
(908) 598-7816

Number of Volumes: Five (5)
Date CDER Received: 03-30-1998
Date Assigned: 04-06-1998
Date of Review: 06-03-1998

Dosage and Route of Administration: Topical cream
Category: Antifungal
Indication: Treatment of athletes foot (interdigital tinea pedis), jock itch (tinea cruris), and ringworm (tinea corporis).

Review Objective: Rx-to-OTC switch

Related submissions:

INDs

NDAs
20-192; Lamisil Cream 1% (approved, 12-30-1992)
20-539; Lamisil Tablets (approved,05-10-1996)
20-749; Lamisil Solution 1% (approved,10-17-1997)
20-846; Lamisil DermGel 1% (approved , 04-29-1998)

Background: Over the years, a number of applications have been submitted to support the different antifungal formulations of the active ingredient, terbinafine hydrochloride. To support these applications, the sponsor has extensively evaluated the safety of this compound in a wide spectrum of animal and *in vitro* studies. These studies were conducted with the tablet, cream, solution and gel formulations. The animal safety profile for terbinafine hydrochloride has been well established, therefore, there are no non-clinical safety issues involved in Rx-to-OTC switch of this drug. The 1% cream formulation is in the U.S. market since 1992, and is also sold as prescription drug in 82 other countries. No adverse effects of any clinical significance have been reported. The OTC formulation will be identical to the approved cream currently marketed under prescription. However, the label for OTC preparation will be different from the Rx label in terms of number of indications and the reduced duration of treatment. Of the currently approved four indications (athlete's foot; jock itch; ringworm; plantar tinea pedis), only plantar tinea pedis will be maintained under the prescription status. The reduced

duration of treatment to one week from 2-3 weeks will further enhance the clinical safety of the drug product. The OTC label shall be drafted by the OTC reviewer.

Regulatory Recommendation: I have no objection to Rx-to-OTC switch for terbinafine Hydrochloride Cream 1%.

/S/ 06/05/98

Kumar D. Mainigi, Ph.D., M.P.H., D.A.B.T.
Toxicologist

CC: NDA 20-980
HFD-82
HFD-540
HFD-560
MO/Vaughan
MO/Aurecchia/HFD-560
Chem/Vidra
Micro/Altaie
Biopharm/Bashaw
Pharm/Mainigi
Pharm/Jacobs
CSO/Cross
CSO/Wright/HFD-560

Concurrence:
A Jacobs, TL,HFD-540 6/3/98
J.Wilkin,Dir,HFD-540 6/9/98